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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/652,750	08/31/2000	Robert T. Baum	Bell-29	3522

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EXAMINER

NGUYEN, PHUONGCHAU BA

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 09/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

HO

Office Action Summary

Application No.

09/652,750

Applicant(s)

BAUM ET AL.

Examiner

Phuongchau Ba Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1-2-2002 amendment.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Claim Rejections – 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Veerina (6,243,379).

Veerina discloses a Connection-Level Multiplexing (CLM) for providing between LAN and WAN addresses outbound packet transfer by replacing private

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packet source IP address and port number (MAC header in Layer 2) and using the lookup table 16 for determining whether a packet is entitled to access a particular service of WAN links 26, if found (entitled) then forward the packet to the WAN link, otherwise, drop the packet {fig.5}.

3. ^{1-25, 28-31} Claims 1-2, 16-17, 31, 5-6, 18-19, 9-10, 20-22, 13, 23-25, 15, 28-30 and 3-4, 7-8, 11-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Dunne (5,740,375).

^{1-2, 5-6, 9-10, 13, 15-25, 28-31}
Regarding claims 1-2, 16-17, 31, 5-6, 18-19, 9-10, 20-22, 13, 23-25, 15, 28-30:

Dunne discloses a method for determining whether the received packet is valid or not (fig.2) based on the data link layer (layer 2) and if it is, then transmits the packet, otherwise, drops the packet. Dunn further discloses in figure 4 step 410 wherein the packet is compared to criteria in the filter (fig.3){col.3, line 51-col.4, line 2}. Dunn also discloses determining whether the packet is a broadcast packet by examining the packet's data link layer {col.4, lines 50-59}, then copying the packet and replacing IP destination

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address of the packet with the current IP address of broadcast list to form a new packet and sending the new packet to destination addresses {figs. 9–10}.

The access control list (claim 13) reads on access broadcast list of IP addresses {fig.10}. The access controller (claim 13) reads on the filter 125 in the routing engine 120 {fig.1}.

Regarding claims 3–4, 7–8, 11–12: a portion of the unique bit string corresponds to a VPN–OUI (current IP address; Dunn, col.5, lines 2–5){claim 3, 7, 11}; a portion of the unique bit string corresponds to a VPN–INDEX (list pointer; Dunn, fig.8; col.5, lines 31–33){claims 4, 8, 12}.

Claim Rejections – 35 U. S. C. § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 14, 26–27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bakke (5,566,170) in view of Dunn (5,740,735) and further in view of Haddock (USP 6,104,700).

Bakke discloses a forwarding device 100 (fig.2) which comprises a plurality of queues (112, 114, 116, 118, 132, 134, 136, 138), a service level list (content addressable memory 128; col.10, lines 49–59), an service level controller (identifier 122){col.10, lines 26–67} for determining the service level to which the packet is entitled using the contents of the service level list {col.10, lines 49–59} and the unique bit string (media header; col.10, lines 27–30, 49–59}.

Bakke does not disclose the claimed features.

However, in the same field of endeavor, Dunn discloses a packet having a layer 2 header (i.e., IP destination address) replaced with a unique bit string (current IP address){fig.10}. Therefore, it would have been obvious to a skilled artisan to apply Dunn's teaching in Bakke's teaching and the motivation being to replacing the destination IP address of the old packet with IP addresses

stored by the broadcast list for assuring that formerly local broadcast packets are allowed to propagate across multiple hops {col.5, lines 18–21; Dunn}.

Also, Bakke does not explicitly disclose the determination of a service level of a packet based on a portion of at least one of layer 3 address or the unique bit string (layer 2 address) of the packet and forwarding the packet to the queue associated with the determined service level as claimed. However, in the same field of endeavor, Haddock teaches such determination. Specifically, Haddock teaches a forwarding device (could be a switch or a router) which determines the quality of service QoS level (a service level) of an incoming packet based on either its IP address (layer 3 address) or MAC address (layer 2 address). See col. 5, lines 31–49. Once the determination is made, the packet is forwarded to a QoS queue associated with the determined QoS level. See figure 2. This mechanism ensures quality of service for various QoS levels, thereby enhancing system performance. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Haddock's teaching of determining a service level of a packet based on either IP address (layer 3 address) or MAC address (unique bit string) of the packet and

forwarding the packet to the queue associated with the determined service level in Dunn' system with the motivation being to provide quality of service for various QoS levels and enhance system performance.

Response to Arguments

6. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 703-305-0093. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 703-308-6602. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

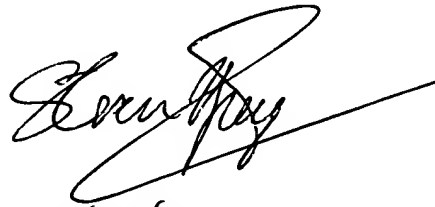


Phuongchau Ba Nguyen

Examiner

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September 7, 2002


9/7/02